

Appendix 1

Brief Descriptions of Parks in the San Francisco Bay Area Network

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Eugene O'Neill National Historic Site was established in 1976 to honor the only Nobel Prize winning playwright from the United States and the architect of modern American theater. O'Neill lived at this site in the hills above Danville, California, from 1937 to 1944 in Tao House. It was here that he wrote his final and most successful plays; "The Iceman Cometh," "Long Days Journey into Night," and "A Moon for the Misbegotten." Since 1980, the NPS has been restoring Tao House, its courtyard and orchards and telling the story of O'Neill, his work and his influence on American theater. The Site encompasses 13 acres of historical buildings, gardens and orchards, and is adjacent to several hundred acres of protected lands in Briones Regional Park. Over 3,700 people visit the site each year.

Fort Point National Historic Site is managed by Golden Gate National Recreation Area. Designated as a National Historic Site in 1970, Fort Point consists of 29 acres bordering the mouth of San Francisco Bay at the south side of the Golden Gate. The U.S. Army Corps of Engineers constructed Fort Point between 1853 and 1861 to prevent entrance of a hostile fleet into San Francisco Bay. The Fort was occupied throughout the Civil War.

Today the site receives over 1.5 million visitors a year. Fort Point is particularly noteworthy for several rare and endemic plant species. Native plant communities still cling to the precipitous slopes above the Fort. Freshwater seeps at Fort Point support the rare San Francisco fork-tailed damselfly. The site also includes the waters of San Francisco Bay within ¼ mile of shore, which serve as important wintering sites for thousands of terns, loons, grebes and cormorants. Recreational fishing and crabbing are popular resource dependent activities at Fort Point.

Golden Gate National Recreation Area comprises approximately 75,000 acres of coastal lands in the San Francisco Bay Area including the mouth of San Francisco Bay, one of the largest ports in the United States. Golden Gate National Recreation Area (GOGA) was established in 1972 as part of the "parks to people" program, and the enabling legislation stated that the lands were founded "in order to preserve for public use and enjoyment certain areas ...possessing outstanding natural, historic, scenic and recreational values." This long, narrow park is divided by the Golden Gate entrance to the San Francisco Bay, which separates the northern Marin County lands from the southern San Francisco and San Mateo County lands. The legislative boundary encompasses the Marin Headlands north of and ocean shoreline south of the Golden Gate, Alcatraz Island, and all of the coastal watersheds south and east of Point Reyes National Seashore, including Mount Tamalpais, Samuel P. Taylor, Angel Island, and Tomales Bay State Parks. In addition, the park has a scenic and recreational easement over the 20,000 acre San Francisco Watershed lands. The Presidio of San Francisco is also within the park. GOGA leases submerged and tidal lands along the open coast and within the San Francisco Bay from the State of California and has jurisdiction over waters within a ¼ mile of former military bases. GOGA is bordered by two National Marine Sanctuaries and is part of the Central California International Biosphere Reserve (UNESCO Program).

The complex geology, topography and microclimates of GOGA support a diverse array of native habitats and species. The degree of threat to these resources is a result of the park's juxtaposition within the urban landscape and the extensive urban / wildland interface along much of the park's boundaries. Invasive species, plant and animal, terrestrial and aquatic, are one of the most significant threat to the long-term sustainability of the park's native ecosystems. Containing the impacts of intense human use of the park is a constant challenge. Golden Gate receives over 13.8 million visitors each year.

John Muir National Historic Site was set aside in August 1964 as a national memorial to the preservationist, John Muir. Located in Martinez, California, John Muir National Historic Site (JOMU) is part of the rapidly expanding urban-suburban-industrial San Francisco Bay Area complex. JOMU encompasses 345 acres, only 8.9 acres of which include the house area and the adjacent ranch where John Muir made his home. The Muir House area includes historic buildings and trees, orchards, a vineyard, and the park visitor center. JOMU recently acquired Muir's gravesite (1.3 acres), which encompasses nine family graves surrounded by a historic pear orchard.

The Mt. Wanda area (326 acres) adjacent to JOMU is included within the boundaries of the park and is characterized by grassland and oak woodland vegetation. It also contains remnants of a historic fruit orchard and an ephemeral stream that drains into Alhambra Creek. Over 27,000 people come to visit the site annually. Resource management concerns at JOMU include the effects of long-term fire suppression, accelerated erosion in disturbed areas, lack of fire ecology research and a comprehensive fire management program, lack of information on visitor use impacts, non-native species invasions, and lack of basic ecological data for the management and monitoring of natural resources. There have been incidental surveys within the site for birds and plants, but a formal, systematic inventory has not been conducted.

Muir Woods National Monument was established in 1908 by this proclamation: "An extensive growth of redwood trees (*Sequoia sempervirens*) embraced in said land is of extraordinary scientific interest and importance because of the primeval character of the forest in which it is located, and the character, age and size of the trees, are hereby preserved from appropriation and use of all kinds under public land laws of the United States and set apart as a national monument, to be known and recognized as the Muir Woods National Monument" (NPS 1908). The monument, located in Marin County only 17 miles north of San Francisco, encompasses only 554 acres but receives nearly 900,000 visitors a year. Muir Woods National Monument (MUWO) is managed by the Golden Gate National Recreation Area. The dominant vegetation of MUWO is old-growth redwood growing in uneven-aged stands with trees ranging up to 800 years old within a mosaic of redwood, Douglas-fir, hardwood, scrub and grassland. The largest trees within MUWO grow within the flood plain of Redwood Creek. This fragment of old-growth habitat harbors four federally listed threatened species, including coho salmon, steelhead trout, California red-legged frog and the northern spotted owl. Other rare or sensitive

species within MUWO include monarch butterflies, California bottlebrush grass and several species of bats.

The Redwood Creek hydrologic system within MUWO has been disturbed by past activities and developments including parking lots, stream bank protection, in-stream grading, and removal of woody debris from the streambed, water withdrawals, agriculture, logging (outside of MUWO), as well as intense recreational use. These activities and developments have altered the stream course, the amount of overland flow and/or the quantity and quality of aquatic habitat. Habitat quality downstream of MUWO directly affects the threatened and endangered species present within MUWO. Redwood Creek watershed and MUWO are currently the focus of a variety of activities including watershed planning, transportation planning, a Visitor Experience and Resource Protection study, water quality and water rights investigations, sensitive wildlife species inventory, sensitive species monitoring, aquatic system and riparian restoration, invasive non-native plant removal and habitat restoration, and GIS mapping of all watershed features. Inventory and monitoring data are critical inputs to all planning efforts and the long-term sustainability of this isolated fragment of old-growth redwood habitat.

Pinnacles National Monument occupies 24,000 acres in Monterey and San Benito Counties, 40 miles inland from the Pacific Ocean in central California. Pinnacles National Monument (PINN) was decreed a National Monument in 1908 to protect its unique assortment of rocks, cliffs, and caves formed by ancient volcanic activity. In January 2000, 8,000 acres of adjacent public lands have been transferred from the Bureau of Land Management to the NPS. Approximately 65% of PINN is congressionally designated wilderness. As the human populations in California continue to grow and move toward PINN, these wilderness areas will increase in importance. Nearly six million people live within a 100-mile radius of PINN and about 20 million within a 200-mile radius, making it easily accessible to people living in the major California metropolitan centers of Los Angeles and the San Francisco Bay Area. The cool temperatures, moist conditions, abundant wildflowers and flowing streams attract a large percentage of visitors in the winter and spring months. Although the immediate area is sparsely populated, PINN is adjacent to an expanding urban population, making tourism a primary component of the local economy. Over 165,000 people visit PINN each year.

PINN lies at the southern end of the Gabilan Mountains, which are early Paleozoic in age (around 510 million years old) and consist primarily of granite, gneiss, schist and marble. The topography of PINN ranges from rolling hills to rock spires, crags and other points of sharp relief. Elevations in the monument range from less than 1,000 feet along South Chalone Creek to 3,304 feet at the summit of North Chalone Peak.

Pinnacles NM is a refuge for many species associated with coastal California communities. Species richness is high with many representatives of the same genera present in small but unbroken ecosystems. Recent investigations have recorded 410 different bee species and a large and diverse migrant, bird population in PINN in the early spring. The broadleaf chaparral ecoregion supports abundant populations of vegetation and wildlife, which contribute to PINN's generic diversity. Years of fire

suppression and adjacent land management practices have altered the wildlife habitat making it difficult to sustain populations of large predators such as bears, mountain lions, and coyotes. The expansion of PINN's boundary includes habitat types that were not represented in the core area of the park and will greatly increase the potential for sustainable management of populations with large home ranges.

Point Reyes National Seashore, located in Marin County, California, is approximately 40 miles northwest of San Francisco. Established by Congress in 1962, this geologically unique peninsula encompasses 71,046 acres of sandy beaches, coastal cliffs and seastacks, marine terraces, coastal dunes and uplands of mixed grassland, coastal scrub, mixed hardwood/Douglas-fir forests, and stands of the rare Bishop pine, and 22,000 acres of estuarine and marine waters. Migrating northward along the San Andreas Fault, the Seashore has appropriately been called an "Island in Time." Approximately 19,000 acres of Point Reyes National Seashore (PORE) have been retained in agricultural production within a "pastoral zone." Six active dairies graze a total of 7,700 acres. An additional 11,200 acres are in beef cattle grazing. The Northern District of GOGA, which is administered by PORE, contains an additional 10,500 acres that are in beef cattle grazing.

In 1976, Congress designated 32,000 acres of PORE as wilderness. Located near the San Francisco metropolitan area, this area is one of the most accessible within the United States wilderness system. The marine environment, influenced by the rugged topography of the peninsula, drives the climate of Point Reyes and significantly adds to the abundance and diversity of wildlife. Point Reyes is the center of one of only five coastal upwelling marine ecosystems in the world. Located at the convergence of a number of ocean currents, adjacent waters are rich in nutrients and support an abundant fishery and associated fauna. Several marine areas along the Point Reyes coastline have been recognized for their biological significance and receive some protection. The Point Reyes Headlands Reserve and Estero de Limantour Reserve are within the Seashore boundary and are administered by the California Department of Fish and Game. Additionally, the California State Water Resources Control Board designated four "Areas of Special Biological Significance" within the Seashore: Tomales Point, Point Reyes Headlands, Double Point, and Duxbury Reef. Similar to GOGA, PORE is bordered by two National Marine Sanctuaries and is part of the Central California International Biosphere Reserve (UNESCO Program).

PORE supports a unique and varied landscape that has been subject to a broad range of human and natural events. As with GOGA, invasive species, plant and animal, terrestrial and aquatic, are one of the most significant threats to the long-term sustainability of the park's native ecosystems. Saved from development by its inclusion within the National Park System, Point Reyes is unique not only in its assemblage of natural and cultural features, but also in its proximity to a major urban population. This juxtaposition makes the Seashore's resources and recreational opportunities readily accessible to a large number of people with over 2.25 million visitors each year.

The Presidio of San Francisco was designated a National Historic Landmark District in 1962 and became part of GOGA in 1994. Since 1998 the Presidio of San Francisco has

been jointly managed by the National Park Service and The Presidio Trust, a special public-private governmental agency tasked with managing most of the buildings of the Presidio and making the park financially self-sufficient by 2013. The Presidio encompasses 1,480 acres, more than 500 historic buildings, a collection of coastal defense fortifications, a national cemetery, an historic airfield, 300 acres of historic forests, beaches, native plant habitats, coastal bluffs and newly restored Crissy Marsh tidal wetland and coastal dunes. The Presidio has the last free-flowing creek in San Francisco, Lobos Creek. Eleven rare or endangered plant species inhabit the dune and serpentine areas of the Presidio. Many of these species' distributions are extremely limited or occur only on the Presidio. This may be due to the fact that the Presidio is one of the largest and last remaining "islands" of habitat in San Francisco. Over 200 species of birds, including 50 nesting species, have been documented on the Presidio. The extent of native habitat and diversity of native plants, birds, fish and invertebrates is increasing dramatically with community-based efforts to restore tidal wetlands, a freshwater lake, riparian habitat, coastal dunes and serpentine bluff habitat throughout the Presidio. Invasive non-native plants, non-native aquatic plants, fish and invertebrates, and unnaturally elevated populations of native wildlife (e.g. skunks and raccoons) pose a significant threat to Presidio natural resources. Intense human use of the Presidio also takes its toll on the Presidio's fragile natural resources.